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IDENTIFIERS *Food Processing

ABSTRACT

Focusing on quantity foods, this module is one of eight included in the Vocational Education Readiness Tests (VERT). The module begins by listing the objectives of the module and describing tools and equipment needed. The remainder of the module contains sections on manipulative skills, trade vocabulary, tool identification, trade computational skills, and measuring skills depicted as minimum competencies students should possess prior to entrance into regular secondary vocational education programs. (A user's guide is also available--see note.) (LRA)

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Module 7 of the Vocational Education Readiness Test (VERT)

QUANTITY FOODS

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QUANTITY FOODS

Objective(s)

1. To determine student's ability to measure in inches, half-inches, quarter-inches, and eighth-inches.
2. To determine the student's ability to utilize an oven mock-up and associated time and temperature control mechanisms.
3. To determine the student's ability to reconcile items listed in a purchase order with the delivery of stated items.
4. To determine the student's ability to expand and/or enlarge a recipe for purposes of serving additional persons.
5. To determine the student's ability to estimate dry measurement in ounces and pounds.
6. To determine the student's ability to estimate liquid measurement in pints, quarts, and gallons.
7. To determine the student's ability to proportion food servings.

Tools Needed:

Oven food timer

Baking container 10" x 16"

Play Dough

Kitchen knife or butter knife

Blank copies of invoices

Chili Bean recipe

Four 16 ounce cans of tomatoes

Four 6 ounce cans of tomato sauce

Three wrapped packages indicating 1 pound, 2 pounds, and 3 pounds of ground beef

One salt box

One pepper box

Four packs of chili mix or wrapped packages

One constructed wood stove built with four simulated burning eyes and oven with control dials (see drawing for construction size)

Four cans 1 each of gallon, pint, quart, 8 ounce

1 gallon of sand

1 pair kitchen scales

Note: See Appendices A and B for stove specifications.

Preliminary Exercise:

The evaluator will identify a 12" plastic rule and demonstrate how to measure to the nearest inch, half-inch, quarter-inch, and eighth-inch. Answer any questions at this time; however, avoid "teaching" the student to measure by giving repeated demonstrations. (See Figure 1.)

Special Instructions: Lines for Tasks 1 - 4 should measure 3", 3 1/2", 3 1/4", and 3 1/8", respectively, and should be drawn on a separate sheet of paper.



Figure 1.

Task 1: _____ •

Task 2: _____ •

Task 3: _____ •

Task 4: _____ •

Tasks 1 through 4

Given a 12" plastic rule and measuring tasks 1, 2, 3, and 4, the student will measure the line in each task and tell his/her findings to the evaluator.

*Lines are drawn on separate sheet to respective length by evaluator.

Preliminary Exercise:

Demonstrate the placement of food in the mock-up oven and the use of each control mechanism, e.g. timer, temperature, etc.



Figure 2.

Task 5

Given a food timer, the student will set time for 5 minutes, set mock-up oven control at 400 degrees, and place food-baking pan in oven. **Note time!**

Preliminary Exercise:

The evaluator will explain to the student that he/she will look at ordered quantities on the invoice, noting how much was shipped, counting items to verify the shipment, and writing on the invoice what amount was received and the difference between ordered quantity.

Special Instructions: Prepare invoice and shipment locally.

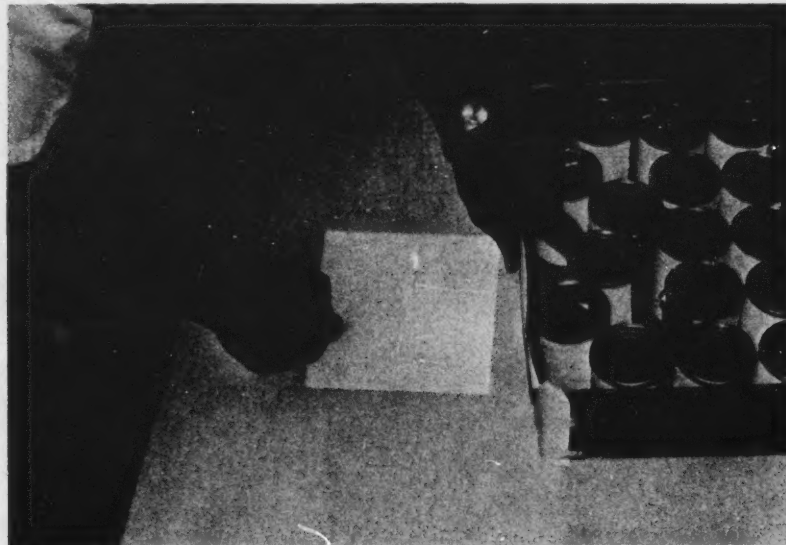


Figure 3.

Task 6

Given an invoice and simulated delivered goods, the student will reconcile invoice with delivery and note shortages and/or overages. **Note time!**

Preliminary Exercise:

The evaluator will identify food items in a chili recipe and explain that the recipe will serve 6 persons. (See Figure 4.)

Special Instructions: Prior to beginning task seven you will need the following food items for demonstration purposes:

- | | |
|----------------------------|---------------------------|
| 1 - 16 oz. bag of beans | 1 - pack chili mix |
| 1 - 12 oz. can of tomatoes | 1 can tomato sauce |
| 1 - lb ground beef | $\frac{1}{2}$ tsp. pepper |
| $\frac{1}{2}$ tsp. salt | |

Stock extras of each item above so student can increase the recipe in Task 7.

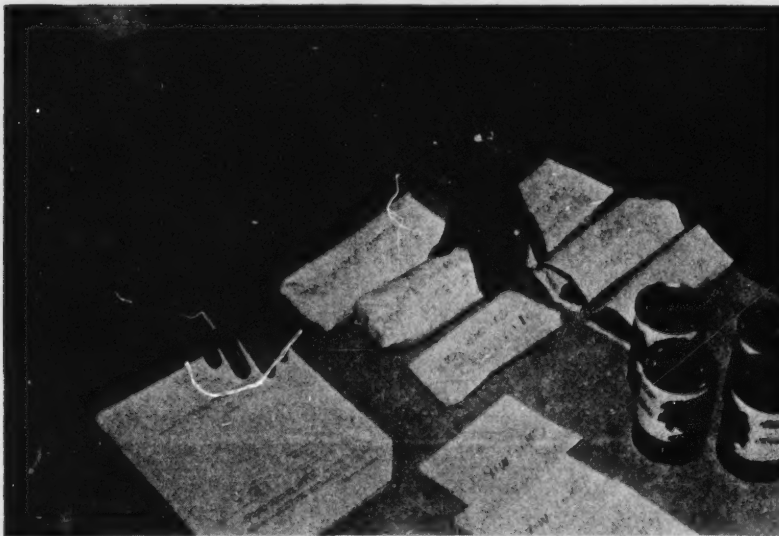


Figure 4.

Task 7

Given a sufficient quantity of the above food items for 24 or more persons, the student will select food for a recipe to serve 18 persons. **Note time!**

Preliminary Exercise:

The evaluator should explain that the cup to be used in Task 8 has been sized to hold 8 ounces of sand. The evaluator will demonstrate how to obtain a level cup-full of sand and how to place the sand in another container.

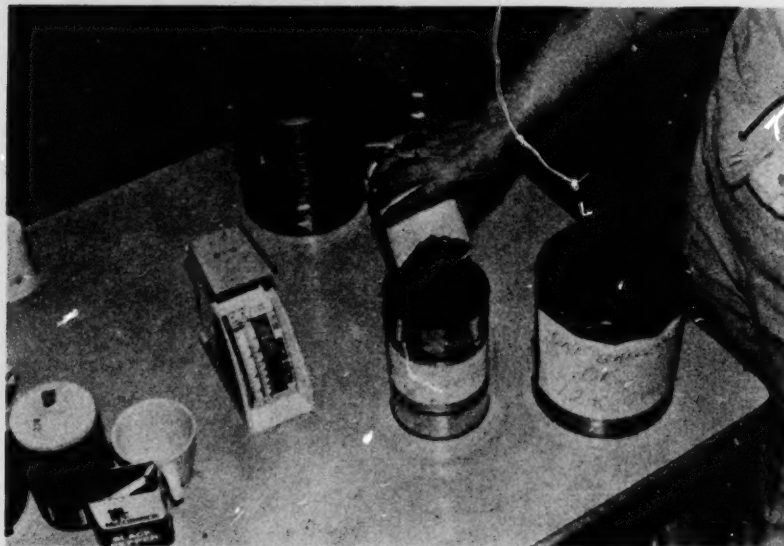


Figure 5.

Task 8

Given a measuring cup sized for 8 ounces of sand, a gallon can full of sand, and one gallon can (empty), the student will use the measuring cup to transfer 32 ounces of sand from one can to the other. **Note time!**

Preliminary Exercise:

The evaluator will demonstrate how to measure 12 ounces of water in a 32 ounce liquid measuring cup.

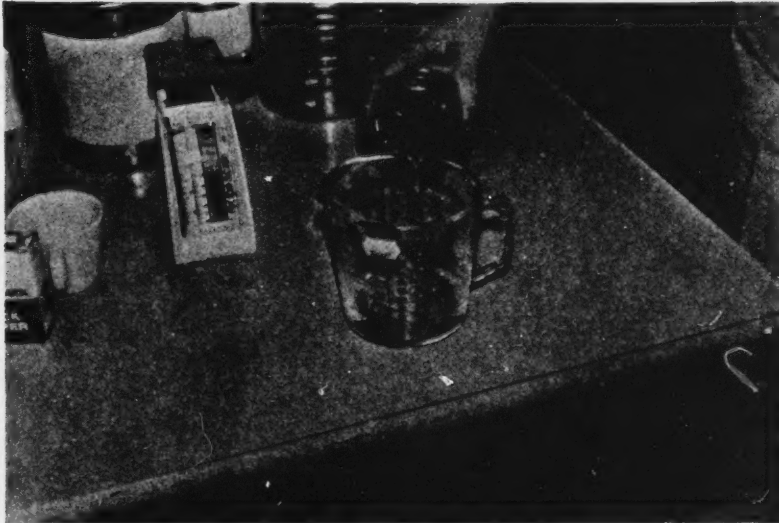


Figure 6.

Task 9

Given a 32 ounce liquid measuring cup (empty) and a sufficient quantity of water in another container, the student will pour 24 ounces of water into the measuring cup. **Note time!**

Preliminary Exercise:

The evaluator will identify a baking pan filled with play dough and demonstrate how to divide the play dough in the pan into 20 servings.



Figure 7.

Task 10

Given a baking container 10" x 16", play dough, and a knife, the student will place the play dough into the baking container and cut servings for 40 persons. **Note time!**

Preliminary Task:

The evaluator will identify a set of kitchen scales, dry sand, and a container for the sand. The evaluator will then demonstrate how to weigh 2 lbs. of sand using the scales. (See Figure 8.)



Figure 8.

Task 11

Given a large container of sand, kitchen scales and an appropriate container the student will weight out 6½ pounds of sand. **Note time!**

VOCATIONAL EDUCATION READINESS TEST (VERT)
SCORING RESULTS SHEET FOR QUANTITY FOODS
(Example Only)

Name _____

Student Performance Data

		Time*				
		Acceptable	Unacceptable			
Task 1			(1/2")	X	Measurement Skills	
Task 2			(1/4")	X		
Task 3			(1/8")	X		
Task 4			(1/16")	X		
Task 5			Establish Local Criteria			
Task 6			Establish Local Criteria			
Task 7			Establish Local Criteria			
Task 8			Establish Local Criteria			
Task 9			Establish Local Criteria			
Task 10			Establish Local Criteria			
Task 11			Establish Local Criteria			

*Each local district should establish local criteria to determine what times are acceptable or unacceptable for completion of tasks.

Quantity Food Vocabulary

A LA (ah-lah): Menu term meaning after the fashion.

A LA CARTE (ah-lah-cart): Menu term meaning from the menu; usually refers to items that are ordered specially.

A LA MODE (ah-lah-mod): As Americans use the phrase, a menu term meaning served with ice cream.

APPETIZER (ap-e-ti-zer): Light foods served before the main course to increase the appetite.

AU GRATIN (o-grat-n): Dishes prepared with a white sauce, topped with bread crumbs and cheese, then baked for a short period.

AU JUS (o-zhe): Meat served in its own juices or natural gravy.

AU LAIT (o-lay): French term meaning "with milk."

BAKE: To cook by dry heat in an oven.

BARBEQUE: To cook by direct heat source (over coals, for instance); food may or may not be basted with a sauce during cooking.

BASTE: To spoon liquid over food as it cooks; the liquid may be drippings from the food.

BEAT: To mix until smooth, using an up-and-over motion.

BLANCH: To dip into boiling water, making the skins of fruit and nutmeats easy to remove or stopping the action of enzymes.

BLAND: Unseasoned.

BLEND: To thoroughly mix two or more ingredients.

BOIL: To cook in water or other liquid until bubbles rise continuously and break on the surface.

BOILING POINT: Point at which a liquid turns into a vapor; 212° F.

BOUILLON (boo-yahn): A clear broth made from meat juices.

BOUILLON CUBES: A commercially prepared concentrated broth packaged in cubes.

BRAISE (braz): To cook slowly in covered utensil in a small amount of liquid or steam. Meat may or may not be browned in small amount of fat before braising.

BREAD: To roll in bread crumbs before cooking.

BROIL: To cook by exposure to direct heat on a grill or over live coals.

BRUSH: To spread melted fat with a pastry brush.

BUFFET (boo-fay): A style of food service in which the customer serves himself/herself from a display made up of many dishes of ready-to-eat foods. (Smorgasbord)

CAFE(kah-fay): Coffee.

CANDY: To cook in a heavy syrup until plump and transparent or crystalized; also, to cook a second time in sugar or syrup.

CARAMELIZE (kar-uh-me-lize): To heat sugar, or foods containing sugar, until brown.

CHILL: To place in a refrigerator until cooled to a temperature between (see original).

CHOP: To cut into pieces less than ½ inch in diameter with a knife or other sharp tool.

CLARIFY: To make liquid clear by adding an ingredient to remove clouding materials.

COAGULATE (ko-ag-u-late): To become firm.

COAT-THE-SPOON: To cover a metal spoon with a film of thickened sauce.

CODDLE: To cook in water below the boiling point.

COLANDER (col-an-der): Bowl-shaped utensil of plastic or metal with small holes; used to drain food.

CONDIMENT (kan-de-ment): Spices or sauces added to food to enhance flavor.

CONSOMME (kan-so-may): Clear stock made from meat, poultry, or fish; can be jellied.

COOL: To lower the temperature.

CORE: To remove the center of fruit.

CREAM: To stir or beat one or more foods until smooth and creamy; usually applies to fat and sugar.

CREOLE (kree-ol): Sauce, usually for rice, made from tomatoes and peppers.

CROQUETTE: Usually a meat plus other ingredients shaped into cones, breaded, and fried or baked.

CROUTONS (kroo-tohns): Small squares of toasted bread used in soup or salad.

CRUMB: To coat or top with crumbs.

CUBE: To cut into squares about ½ inch in size.

CUT: To divide food into small irregularly shaped pieces.

CUT-IN: To chop fat into small particles in dry ingredients by using two knives or a pastry blender.

DEEP-FAT FRY: To cook in deep fat.

DEVIL: To make foods spicy by adding condiments or other foods such as pepper or pimento.

DICE: To cut into small cubes.

DILUTE: To lessen the strength, thickness or flavor of a mixture, usually by adding water.

DIP: To plunge into a liquid or dry ingredient until covered and then to remove quickly.

DISSOLVE: To combine or mix a solid ingredient with a liquid until a solution is formed.

DOT: To cover with small particles, such as dot with butter.

DREDGE: To coat with flour or other fine substance.

DUST WITH FLOUR: To sprinkle with flour.

EMULSIFY: To combine two liquids (otherwise unmixable) by breaking up one into small drops within the other; usually done by shaking.

ENTREE (anh-tray): Main dish on the menu.

FILLET (FILET) (fee-lay): To separate a raw, choice piece of fish or meat from the bones; also, the cut piece of meat.

FILET MIGNON (fee-lay me-nyon): Beef tenderloin.

FLAKE: To break into small bits by using a fork, taking care not to mash the pieces.

FOLD: To combine ingredients by cutting vertically through a mixture and turning it over by sliding the spoon or rubber spatula across the bottom of the bowl with each turn.

FONDUE (fahn-doo): A cheese dish usually made with Swiss cheese and wine; also, small pieces of meat fried in oil.

FRY: To cook in fat.

GARNISH: To add a decoration (usually edible) to a food to make it more attractive.

GRATE: To form flakes by rubbing food with pressure against a grater.

GRILL: To cook by direct heat.

GRIND: To reduce to particles by cutting or grinding.

HORS D'OEUVRE (ohr-derv): Appetizers, usually eaten with the fingers.

HULL: To remove the stem and cap from berries; also, to remove husks and silks from corn.

KNEAD: To press, fold, and stretch a dough, such as a yeast bread or biscuits.

LARD: Any form of pork fat.

LEAVEN: To make light using an agent, such as yeast or baking powder.

LEVEL OFF: To move the straight edge of a knife or spatula across the edge of a measuring cup or spoon, scraping away the excess dry ingredients.

MARINATE: To let food stand in a marinade, usually an oil-acid mixture, like French dressing, to tenderize or add flavor.

MASH: To pulverize by pressing and working with a wire or flatheated device.

MELT: To liquify by heat.

MERINGUE: A mixture of stiffly beaten egg whites and sugar which is lightly browned in the over.

MINCE: To cut or chop into very small pieces.

MIX: To combine ingredients.

MOLD: To mix, knead, or press into the desired shape or consistency.

OMELET (om-uh-let): Egg dish made by pouring egg mixture into a pan to cover entire bottom, cooking, and then folding.

PAN (PANNING): To cook a vegetable in a tightly covered skillet in a small amount of fat without water.

PAN BROIL: To cook uncovered in a pan or on a griddle without fat or grease.

PAN FRY: To cook food in shallow fat.

PAN BOIL: To partially cook a food by blanching or boiling.

PARCH: To brown a food by using dry heat.

PARE: To cut off the outside covering with a knife or other utensil.

PEEL: To strip off the outside covering by hand.

PIT: To remove the stone (pit) or seeds from fruit.

POACH: To cook in a hot liquid, being careful to retain shape.

PUREE (pew-ray): To force cooked foods through a strainer or to run them through a blender to make a thick, smooth pulp.

RECONSTITUTE: To restore foods, such as frozen juice or dry milk, to their normal state, usually by adding water.

RENDER: To separate fat by using low heat.

RICE: To force foods through a sieve.

ROAST: To cook in an uncovered pan in the over.

ROUX (roo): A mixture of fats (such as meat drippings) and browned flour used to thicken and add flavor to sauces, soups, and gravies.

SAUTE (soh-ta): To brown quickly in a small amount of fat, turning frequently.

SCALD: To heat to a temperature just below the boiling point.

SCALLOP: Baked, thinly sliced layers of food sprinkled with flour, salt, pepper, bits of fat, or cheese to which a liquid (milk or vegetable juice) is added.

SCORE: To make thin parallel cuts in one or more directions on the surface of food.

SEAR: To brown the surface of meat by heating at high temperature for short time; adds color and flavor to meats.

SEASON: To improve flavor by adding salt, pepper, or other spices.

SHRED: To cut into long, thin pieces or strips.

SIEVE: A wire basket or bowl for draining foods; also referred to as a strainer.

SIFT: To separate into fine particles with a sieve.

SIMMER: To cook in a liquid at a temperature of about 185° F. (85° C.); bubbles form slowly and break below the surface.

SKEWERING (skew-ur-ing): Impaling meat or poultry on a long spike for barbecuing or broiling.

SMOTHER: To cover with vegetables or liquid.

SOUFFLE (sue-flay): A baked dish that is made light by folding in stiffly beaten egg whites.

STEAM: To cook in steam with or without pressure.

STEEP: To let food stand in a liquid to develop flavor and color, as in making tea.

STEW: To cook in a liquid.

STOCK: A liquid in which meat, fish, or vegetables have been simmered. Used as a base for soup, stew, gravy, or sauce.

STUFF: To pack a mixture into a cavity as with turkey or bell peppers.

THAW: To bring to a temperature above freezing.

THICKEN: To cause a food to become firmer by the addition of eggs, flour, or other products and by cooking them for an additional period of time.

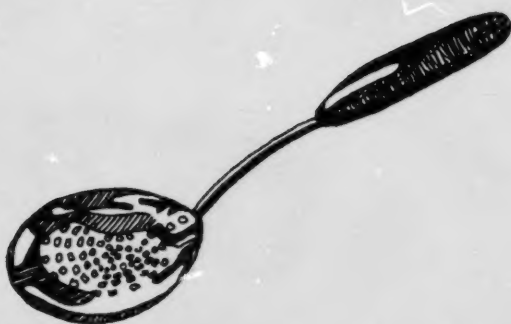
TOAST: To brown with dry heat.

TRUSS: To secure the wings and legs of a bird with pins or twine.

UNMOLD: To loosen and remove from a container.

WHIP: To rapidly beat cream, eggs, or gelatin dishes to incorporate air and increase volume.

Tools for Quantity Foods



SKIMMER



ROTARY EGG BEATER



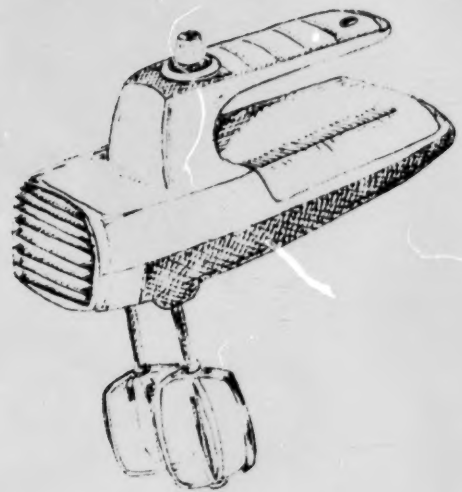
WIRE WHIP



TWO-TINE FORK



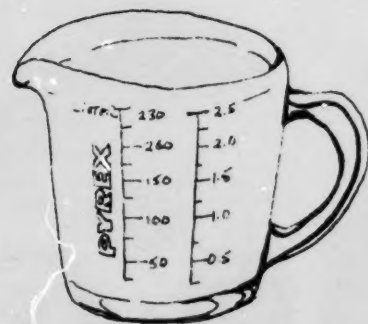
PASTRY BRUSH



PORTABLE MIXER



PORTION SCALES



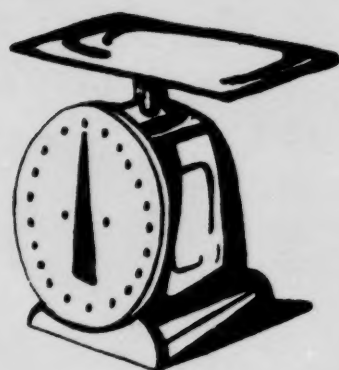
**MEASURING CUP
(LIQUID)**



MEASURING SPOONS



MEASURING CUP (DRY)



SCALES



FUNNELS



FLOUR SIFTER



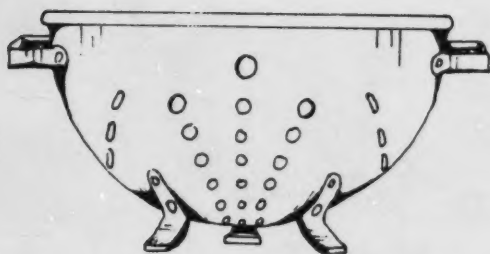
SAUTE' PAN



STOCK POT



SAUCE PAN



COLANDER



STRAINER



SLICER KNIFE



PARING KNIFE



BONING KNIFE



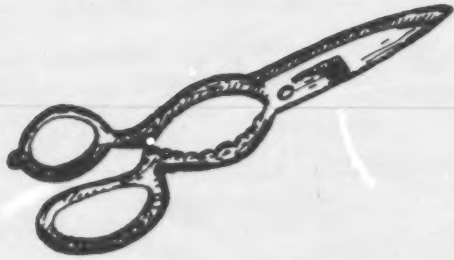
BUTCHER KNIFE



FRUIT/SALAD KNIFE



FRENCH KNIFE



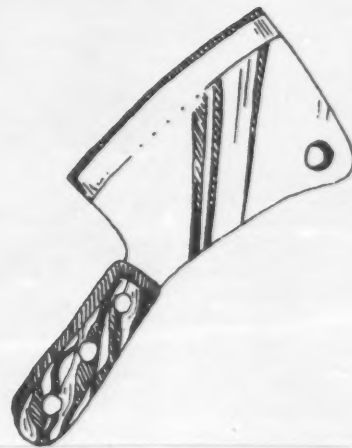
UTILITY SCISSORS



SPATULA



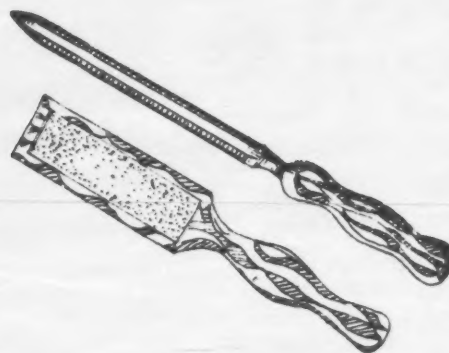
PARING KNIFE



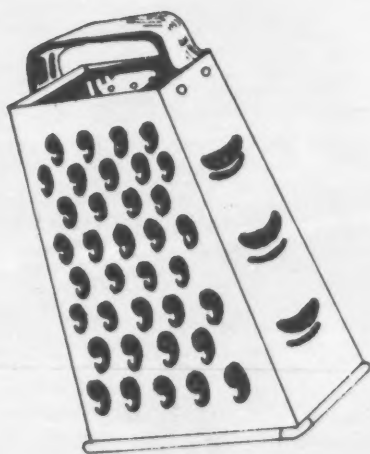
CLEAVER



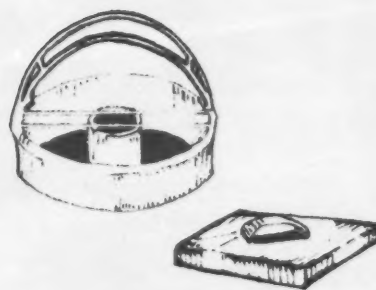
CITRUS KNIFE



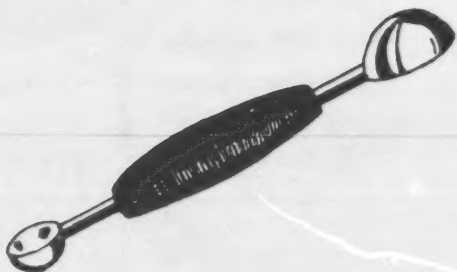
SHARPENING KNIVES



GRATER



COOKIE CUTTER



MELON BALLER



EGG SLICER



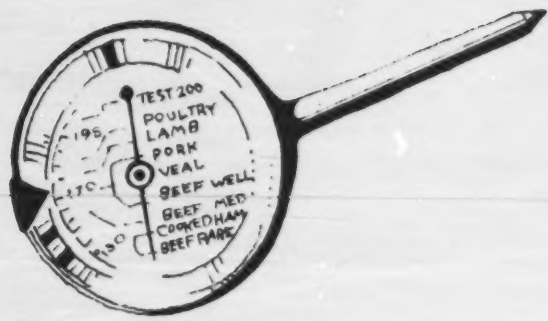
ROLLING PIN



PASTRY BLENDER



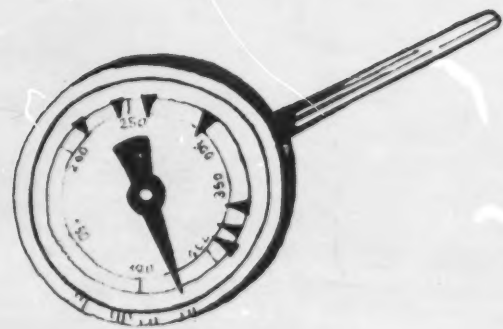
SCOOP



MEAT THERMOMETER



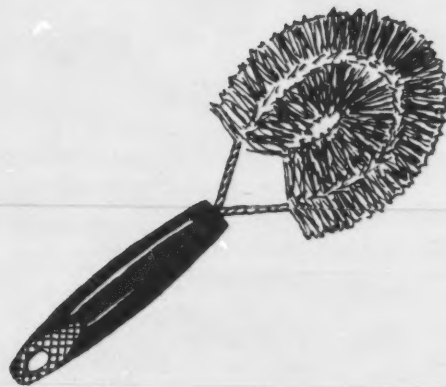
APPLE CORER



CANDY THERMOMETER



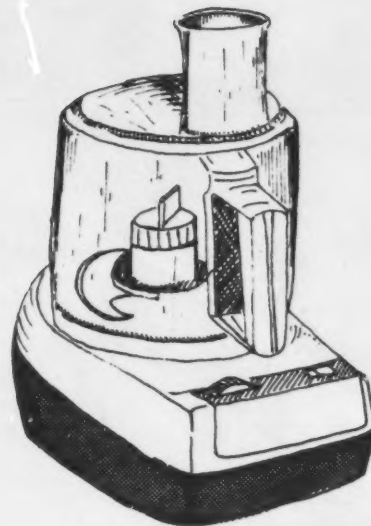
VEGETABLE PEELER



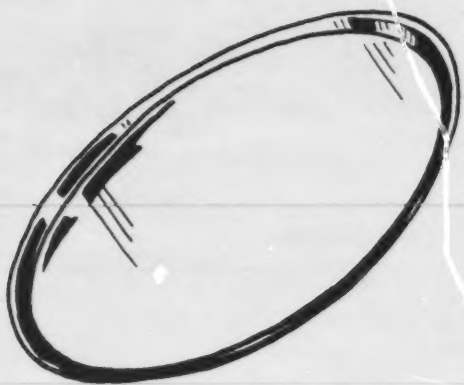
VEGETABLE BRUSH



TIMER



FOOD PROCESSOR



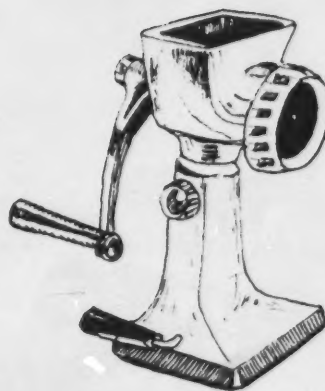
PIZZA PAN



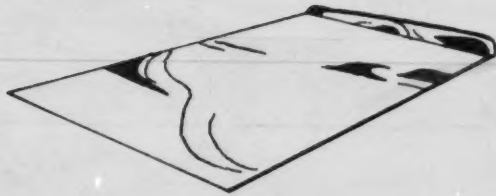
DUTCH OVEN



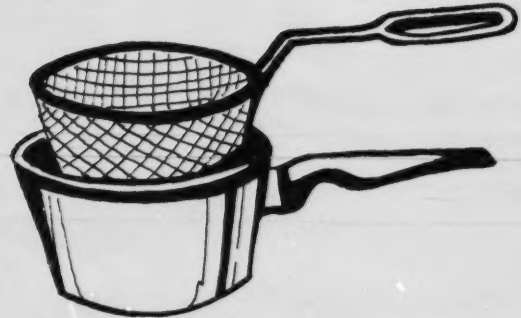
DOUBLE BOILER



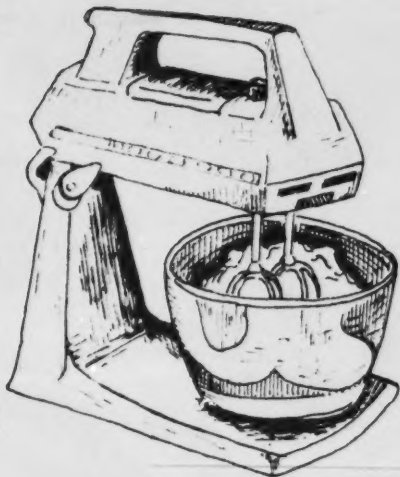
FOOD GRINDER



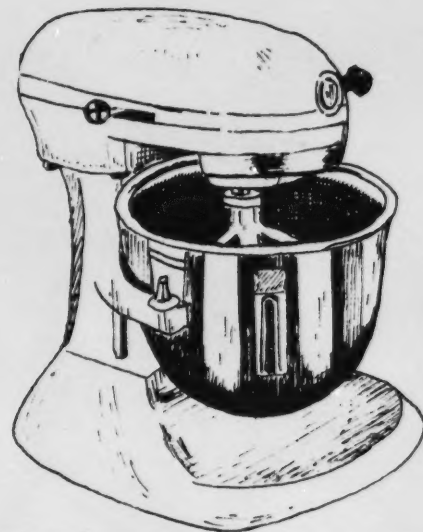
COOKIE SHEET



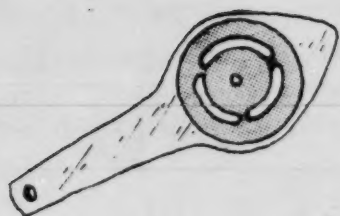
DEEP FAT FRYER



STANDING MIXER



HEAVY DUTY MIXER



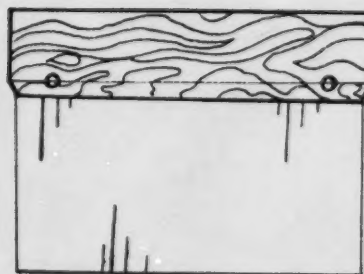
EGG SEPARATOR



BOWLS



CHEESE SLICER



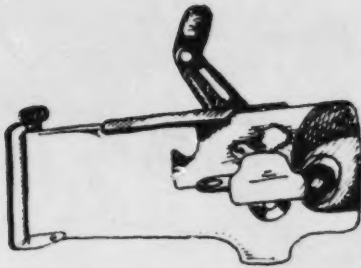
DOUGH SCRAPER



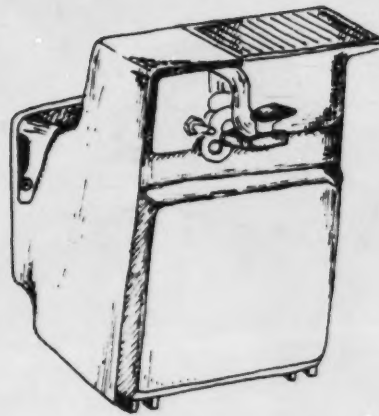
COFFEEMAKER



CAN OPENER (HAND)



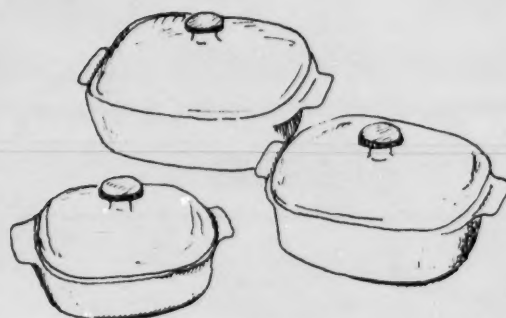
CAN OPENER (WALL)



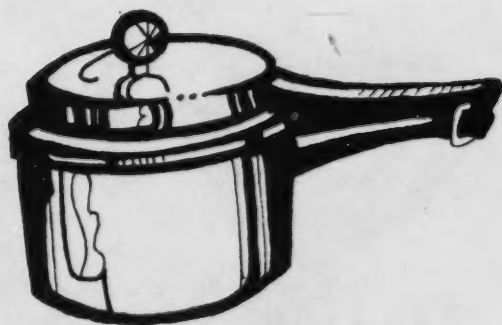
CAN OPENER (ELECTRIC)



CANISTERS



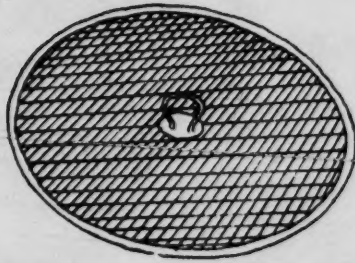
CASSEROLE DISHES



PRESSURE COOKER



DESERT/SALAD MOLDS



SPLATTER SCREEN



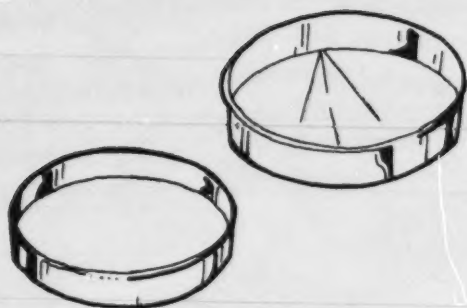
BASTER



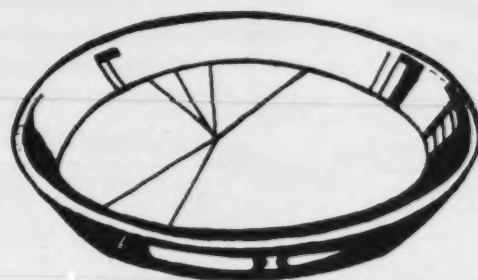
BAKE PANS



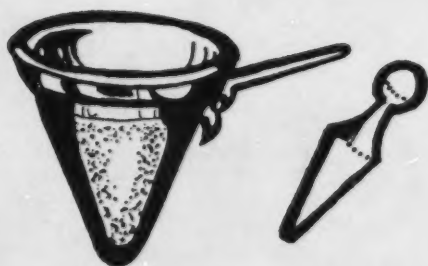
ROASTING PAN



LAYER CAKE PAN



PIE PAN



FOOD PRESS



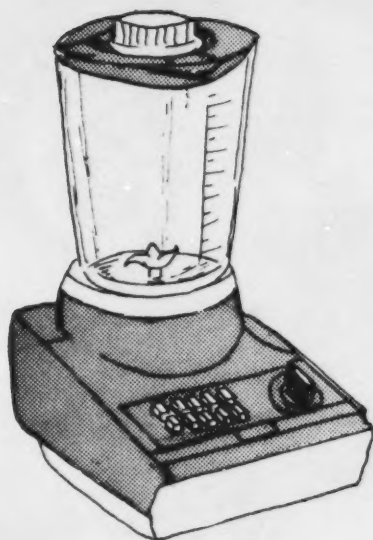
MUFFIN PANS



PERFORATED SPOON



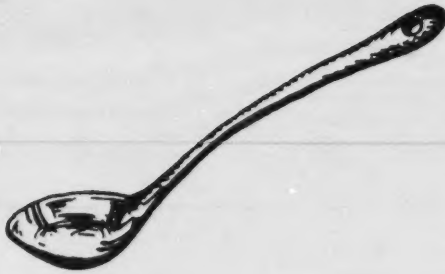
TONGS



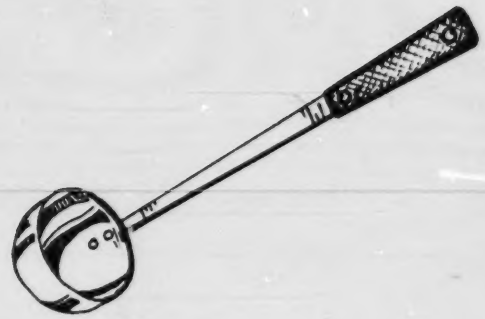
FOOD BLENDER



WOODEN SPOON



BASTING SPOON



LADLE



TURNER

**COMPUTATIONAL SKILLS
FOR
Quantity Foods**

Addition:

$1 \frac{1}{3}$	$2 \frac{3}{4}$	$4 \frac{7}{8}$	$5 \frac{1}{2}$	$3 \frac{1}{2}$	$19 \frac{7}{16}$	$46 \frac{1}{8}$
<u>+2 $\frac{2}{3}$</u>	<u>3 $\frac{1}{2}$</u>	<u>6 $\frac{7}{8}$</u>	<u>6 $\frac{1}{4}$</u>	<u>9 $\frac{1}{2}$</u>	<u>17 $\frac{3}{16}$</u>	<u>55 $\frac{3}{8}$</u>

123	2,320	12.88	1.67	.06	.92	56
<u>56</u>	<u>199</u>	<u>11.22</u>	<u>.09</u>	<u>.07</u>	<u>.09</u>	43
						7
						<u>19</u>

132		
88	$\frac{1}{2}$	$11 \frac{5}{16}$
11	$\frac{3}{4}$	$6 \frac{1}{4}$
<u>121</u>	<u>$\frac{1}{3}$</u>	<u>$3 \frac{3}{8}$</u>

Subtraction:

18	10.3	$11 \frac{1}{2}$	$8 \frac{3}{8}$	$22 \frac{3}{4}$	$13 \frac{11}{16}$
<u>-7</u>	<u>6.8</u>	<u>3 $\frac{1}{4}$</u>	<u>4 $\frac{5}{8}$</u>	<u>6 $\frac{1}{2}$</u>	<u>2 $\frac{3}{16}$</u>

1/67	.92	23.04	16.50	112.62	110.17
<u>.09</u>	<u>.09</u>	<u>3.97</u>	<u>8.51</u>	<u>99.73</u>	<u>109.79</u>

Multiplication:

$15 \times 3 =$

$2.3 \times 6.8 =$

$1/4 \times 1/2 =$

$22 \times 22 =$

$9.9 \times 13.4 =$

$8 \times 9.5 =$

$11 \times 110 =$

$11.5 \times 16 =$

$12 \times 11 =$

Division:

$4 \div 2 =$

$129.6 \div 10 =$

$25.5 \div 5 =$

$16 \div 2 =$

$44 \div 12 =$

$25.5 \div 15 =$

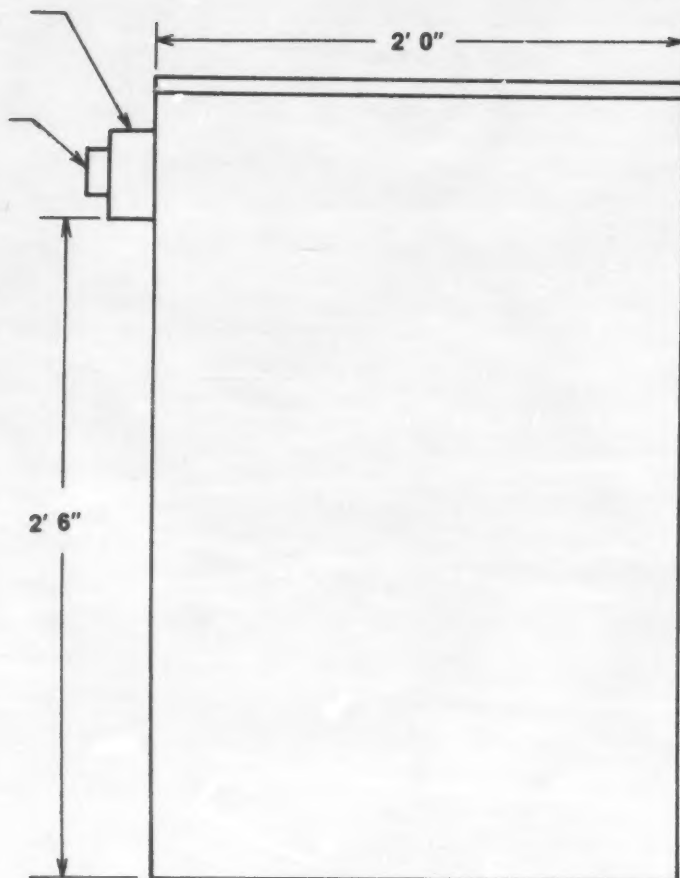
$36 \div 6 =$

$116 \div 36 =$

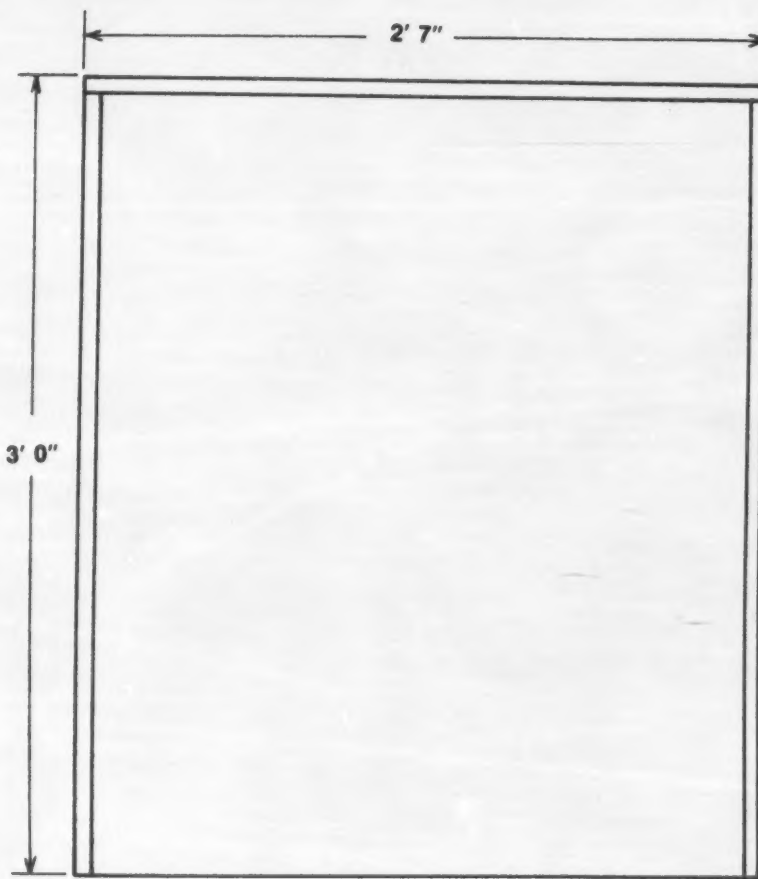
$1080 \div 33 =$

Reading Problems

1. Four pounds of hamburger will serve 16 persons. How many pounds would you order to serve 56 persons?
2. Three cases (24 cans per case) of tomatoes cost \$22.20. How much are you paying per can?
3. If you place a cake in an oven at 10:25 a.m. to bake it for 45 minutes, what time would you remove it from the oven?
4. If you can peel a dozen potatoes in 5 minutes, how long would it take you to peel 100 potatoes?
5. You received \$35.00 in tips while working tables in a restaurant. You were also paid \$3.50 an hour for 36 hours of work by the owner. How much money did you make from your restaurant job?
6. You ordered a box of lemons which contained one gross by warehouse count. How many lemons should the box contain?
7. The head cook has just prepared a sheet cake in a 12 inch by 18 inch pan. What size would the servings be if the cook wished to cut the cake into 54 pieces?
8. Mr. Simmons, the produce person, sells you 5 bunches of turnips at 35 cents each, 10 pounds of tomatoes at 49 cents per pound, 3½ dozen oranges at \$1.00 per dozen, and 10 heads of lettuce at 69 cents per head. How much should he charge you for the above produce?



SIDE VIEW



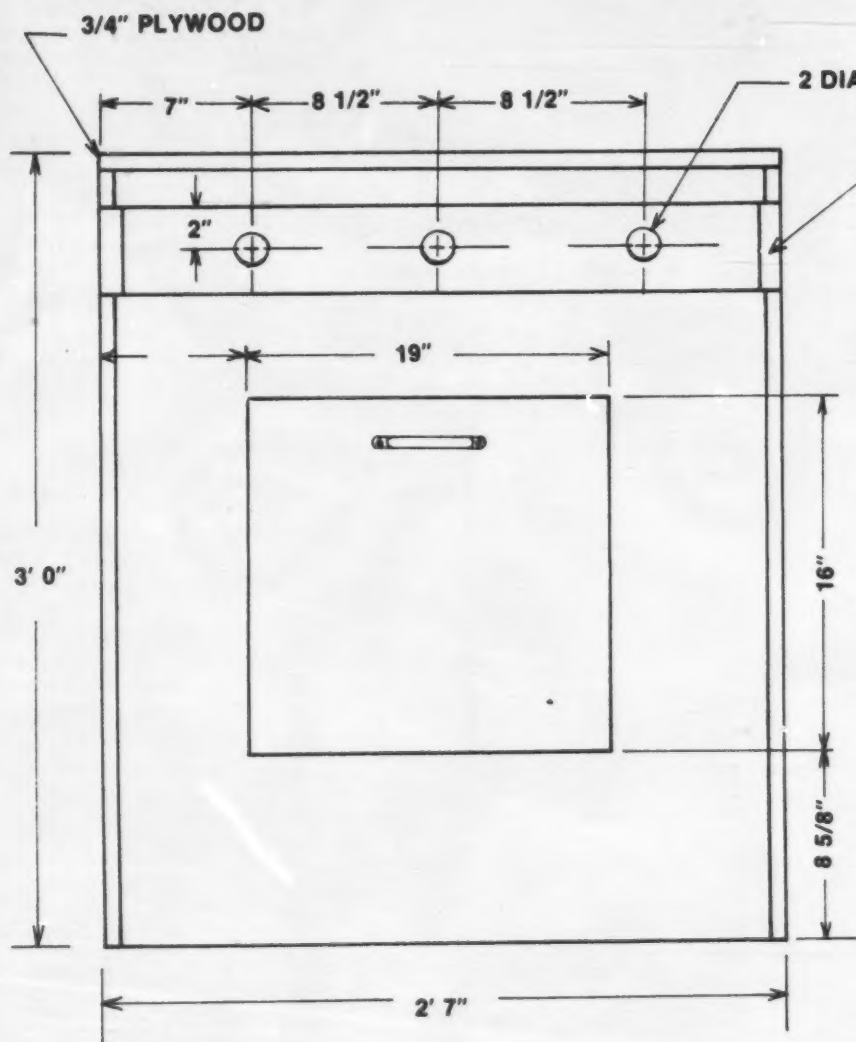
BACK VIEW

Appendix A

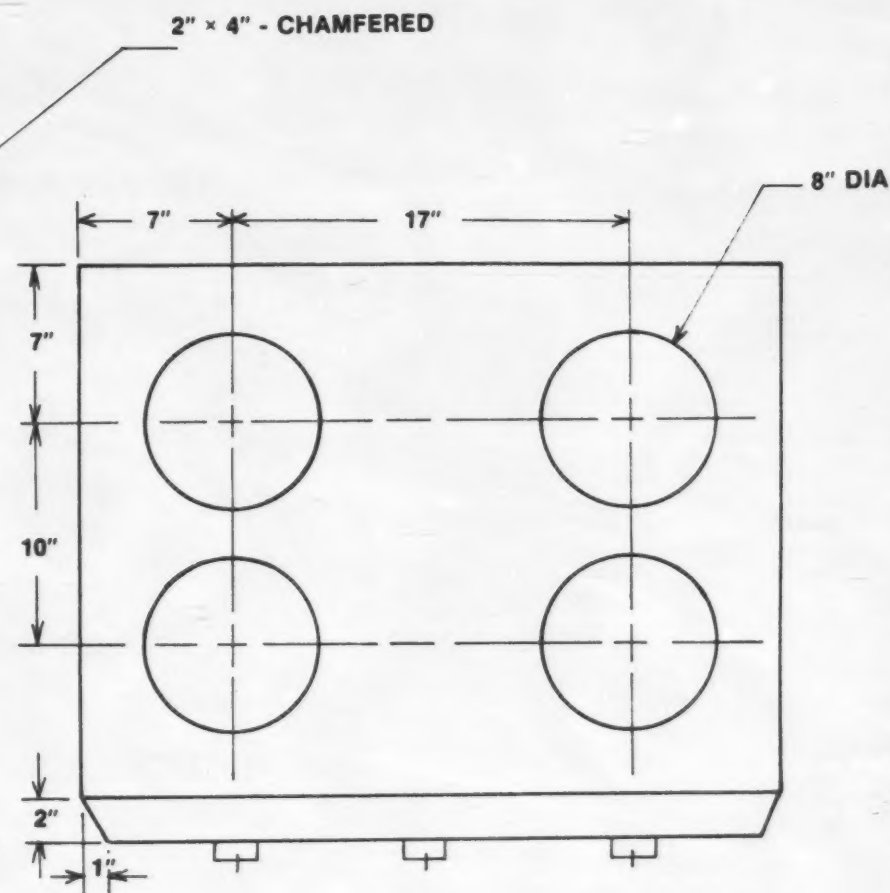
STOVE

SCALE: 1/8" = 1"

44



FRONT VIEW



TOP VIEW

46

45

Appendix B

STOVE

SCALE: 1/8" = 1"